ABSTRACT

A system and method is provided to reduce particulate and NO_x emissions from diesel engines through the use of a duel-fuel fumigation system. The system injects a gaseous-fuel flow into the air intake stream of a diesel engine. This results in more complete combustion within the engine as well as reduced diesel fuel usage, which each work to reduce emission outputs of the engine. As presented, the system is operative to meter the gaseous-fuel flow into the diesel engine based on one or more engine parameters such as, for example, exhaust gas temperature, exhaust oxygen levels, engine speed and/or engine load. Monitoring one or more engine parameters allows fine-tuning the flow of gaseous fuel into the engine and thereby prevents loss of engine power at high-end loads while maintaining favorable emission outputs over substantially the entire operating range of the engine.